

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of)

Carl J. Sinfield)

Serial No. 09/703,243)

Filed 11/01/2000)

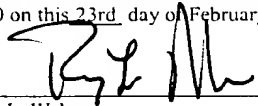
For Ventless Tire Mold)

Group Art Unit 3726

Marc Quemuel Jiminez, Examiner

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Ray L. Weber

BRIEF OF APPELLANTS PURSUANT TO 37 CFR 1.192

ASSISTANT COMMISSIONER FOR PATENTS

Mail Stop AF

P.. O. Box 1450

Alexandria, VA 22313-1450

Sir:

This is an appeal to the Board of Appeals from the final rejection in the Official Action dated May 20, 2004, of claims 5-8 of the subject application. A Notice of Appeal was filed for the subject application on August 22, 2003. This Appeal Brief is enclosed in triplicate.

I. REAL PARTY IN INTEREST

The owner of the present patent application is Quality Mold, Inc., a corporation incorporated under the laws of the State of Ohio and having its principal place of business at 2200 Massillon Road, Akron, Ohio 44312. An Assignment was filed in the Assignment Division of the United States Patent and Trademark Office on November 1, 2000 and was recorded in the records of the PTO at Reel/Frame 011275/0677.

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II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to the Appellant or the Appellant's legal representative that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

The application was originally filed with 8 (1-8) claims. Claims 1-4 were canceled as directed to a non elected invention in Appellant's Response to the first Office Action. Claims 5-8 were finally rejected by the Examiner. The rejected claims on appeal are presented in their amended form, where applicable, in the attached Appendix A.

IV. STATUS OF AMENDMENTS

No amendments have been presented after the final rejection, and all amendments have been entered.

V. SUMMARY OF INVENTION

The claimed invention is directed to process for making a ventless tire mold of individual pitch profiles developed from foundry castings that are nestingly interconnected. In the prior art, a hand carver or computerized numeric controller (CNC) machine was employed to make a master model of an appropriate material such REN board, plaster, or the like. From the master model, foundry tooling was made and tooling cores were ultimately prepared from the foundry tooling. A core is a sequence of pitches or tire tread elements. An appropriate number of cores, with the requisite pitch sequences for the desired tread patterns, was generated and these cores were then mated in the proper diameter and pitch sequence to define the requisite mold. This assembly was then cured and employed to make castings, from which the molds themselves could be made. In the prior art, undercuts, where sipes must be employed, were achieved only by the implementation of tedious handwork. Further, prior art molds necessarily required a large number of pinhole vents to

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allow air to escape from the mold as the tire was expanded into the mold during the curing operation. These pinhole vents required continuous cleaning and removal of cured rubber to prevent blockage and impairing the efficiency of the mold. The concept of the instant invention is the development of a ventless tire mold, that eliminates the prior art pinhole vents by developing a mold from a plurality of individual pitch profiles developed from a foundry casting and nestingly interconnected to define the mold assembly.

VI. ISSUES

The issues presented on appeal are whether the method of claim 5 is anticipated by Galli (5,234,326) and whether the method of claims 6-8 is obvious in view of Galli and the purported Applicant's Admitted Prior Art (AAPA) referenced on page 1, lines 16-24 of the specification. More particularly, the issues present on appeal are best defined in paragraphs 6, 7 and 8 of the Detailed Action portion of the final rejection from which appeal is taken.

VII. GROUPING OF THE CLAIMS

The rejection of all pending claims, namely claims 5-8, necessitates the present appeal. Claim 5 is an independent claim, with claims 6-8 depending therefrom. For purposes of appeal, the claims are argued separately.

VIII. ARGUMENT

The Examiner's rejection of claim 5 as being anticipated by Galli cannot stand. Galli is directed to the prior art that the instant invention seeks to improve upon. Galli teaches the fabrication of cores, as treated extensively in the instant application with respect to the prior art. Galli does not teach the fabrication and joinder in a mold of individual pitch profiles. The elements 10-12 of Galli are not pitch profiles, but are simply denominated as such by the Examiner for purposes of maintaining an improper rejection. Moreover, the ribs 12a do not form sipes, nor does Galli suggest that they do. They are simply ribs, and while ribs may be used to form

sipes, not all ribs form sipes and Galli makes no mention of the presence of sipes. At the bottom line, Galli teaches fabrication and interconnection of cores, not pitch profiles, to obtain a tire mold configuration as is well known in the art.

The Examiner's rejection of claims 6-8 on the combination of Galli and AAPA is also improper. The AAPA does not employ, teach, or suggest the use of individual pitch profiles cut from foundry castings to form a mold. While it is acknowledged that the use of a multi-axis CNC machine is known in the art, it is not known to use such a machine to cut a three dimensional model in the form of pitch profiles as required by claims 6 and 7. Moreover, there is absolutely no suggestion in either Galli taken alone or in combination with AAPA that undercut ribs may be formed in tire tread portions to receive sipes. Indeed, there is absolutely no mention of sipes in Galli at all.

In paragraph 6 of the Examiner's Detailed Action, the Examiner attempts to make a silk purse out of a sow's ear by suggesting that Galli teaches individual pitch profiles 11. Those are not pitch profiles at all. Rather, the elements 10 and 11 of Galli are shoulder blocks that are employed at opposite ends of center blocks 12. There is no pitch profile at all, precluding any rejection under 35 U.S.C. §102 of claim 5. The Examiner has simply sought to rewrite Galli in view of the claimed invention, which is nothing more than improper hindsight.

In paragraph 7 of the Detailed Action, the Examiner goes further by suggesting that because sipes can be formed with a rib, and because Galli teaches a rib, Galli must therefore teach the formation of sipes as set forth in claim 8. Such contorted reasoning again is the result of improper hindsight. While ribs may be employed to form sipes, not all ribs form sipes, but may form any of a plurality of contours in a tire configuration. Galli never mentions sipes, and the suggestion that it does comes solely from the teachings and claims of the instant application, not Galli nor the AAPA.

As to paragraph 8 of the Detailed Action, while Galli might suggest a ventless mold, it is certainly not clear that such a mold is what is intended. Even if that were the case, Galli falls far short of anticipating or rendering the claims of the instant

application obvious, as presented herein.

As to paragraph 9 of the Detailed Action, it is respectfully presented that the Examiner totally mischaracterizes the claims advanced. Indeed paragraph 9 is, by itself, a strong argument for allowance of the instant application. The Examiner states "that the features upon which Applicant relies (i.e., individual pitch profiles cut from foundry castings to form a mold by nesting engagement) are not recited in the rejected claim(s)." That is simply wrong. One cannot read claim 5 without seeing that individual pitch profiles are prepared from foundry castings and are nestingly interconnected to form a mold of individual pitch profiles. Frankly, it appears that the Examiner's primary basis for rejection is founded on an absence of understanding of the primary claim that is rejected. All of the features that the Examiner acknowledges would be a basis for allowance are, in fact, present in the claim, although apparently not appreciated by the Examiner.

IX. CONCLUSION

In light of the forgoing, the Examiner's rejection cannot be sustained. Claim 5 is clearly not anticipated by the Galli reference, and the claims depending therefrom are certainly not obvious in view of Galli or AAPA. While it might be argued that Galli teaches some type of ventless mold, there is absolutely no reference to the forming of a mold by the implementation of pitch profiles formed from foundry castings provided in nesting interengagement. Indeed, there is no mention or suggestion of pitch profiles in Galli at all, nor is there any mention or suggestion of the formation of sipes which is most effectively achieved by the process of the instant invention in which individual pitch profiles are formed. In light of the foregoing, the rejection of the Examiner must be reversed.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Ray L. Weber", positioned above a horizontal line.

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February 23, 2004

APPENDIX A

Claims on Appeal:

- 1 5. (Amended) A method for making a ventless tire mold, comprising:
2 (a) developing three dimensional models of tire tread portions;
3 (b) installing sipes into the models;
4 (c) generating foundry castings from the models having the sipes installed;
5 (d) preparing individual pitch profiles from said foundry castings; and
6 (e) assembling a mold by nestingly interconnecting a plurality of said prepared
7 individual pitch profiles.
- 1 6. The method for making a ventless tire mold according to claim 5, wherein said
2 three dimensional models are cut by a multi-axis CNC machine.
- 1 7. The method for making a ventless tire mold according to claim 6, wherein each
2 said tire tread portion corresponds to a pitch.
- 1 8. The method for making a ventless tire mold according to claim 7, wherein
2 undercut ribs are formed in said tire tread portions for receiving said sipes.